REMARKS

Applicants have canceled claims 1, 2, 4 and 7-9; amended claims 3, 5 and 6; and added new claims 10-19. Thus, claims 3, 5, 6 and 10-19 are pending in the subject application. Support for new independent claim 10 can be found, for example, in paragraphs [0018, 0020-0029] and FIG. 1. No new matter has been added to the application by virtue of the present response.

Claim to Foreign Priority

Applicants respectfully submit that the requirements for a claim to foreign priority have been fulfilled.

Applicants' claim to foreign priority was made in the Application Data Sheet filed on 11/21/2002 when the present application was filed. The claim to foreign priority was recognized in the first official filing receipt of 12/16/2002 for the present application. A certified copy of the EP01480144.3 application as required by 35 U.S.C. 119(b) was mailed to the USPTO on 08/28/2006 and was received and accepted by the USPTO on 08/31/2006 (see PAIR system).

Therefore, Applicants respectfully request that the Examiner acknowledge that the claim to foreign priority has been fulfilled and that the certified copy of the priority document has been received.

Objection to the Specification

The Examiner objected to paragraph [0011] due to an informality. Applicants have amended paragraph [0011] as suggested by the Examiner. Therefore, Applicants believe that the objection to the Specification has been overcome.

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Claim Objections

The Examiner objected to claims 1, 2, 5 and 6 because of informalities. Applicants have canceled claims 1 and 2, and amended claims 5 and 6 as suggested by the Examiner. Therefore, Applicants believe that the objections to the claims have been overcome.

Claim Rejections - 35 U.S.C. 112, second paragraph

The Examiner rejected claims 1, 3-6 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have canceled claims 1 and 4, and have used the term "data packet" in new claim 10 from which claims 3, 5 and 6 depend upon. Therefore, Applicants believe that the rejection under 35 U.S.C. 112, second paragraph, has been overcome.

Non-Statutory Obviousness-type Double Patenting

The Examiner provisionally rejected claims 1-4 and 9 on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-4 and 8 of co-pending U.S. patent application serial no. 10/065,808, individually, and in view of U.S. Patent No. 6,438,134 (Chow).

Applicants have canceled claims 1-4 and 8 in co-pending U.S. patent application serial no. 10/065,808. Thus, the claims in the present application by virtue of this response are patentably distinct from the new claims now presented in co-pending U.S. patent application serial no. 10/065,808.

Therefore, Applicants believe that the provisional non-statutory obviousness-type double

patenting rejection has been overcome.

Claim Rejections - 35 U.S.C. 102 (e)

The Examiner has rejected claims 1, 2 and 9 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,438,134 (Chow).

Applicants have canceled claims 1, 2 and 9. Thus, the rejections of claims 1, 2 and 9 as being anticipated by Chow is moot.

Regarding Applicants' new independent claim 10, and claims dependent thereupon, Applicants believe that neither Chow nor U.S. Patent No. 6,680,933 (Cheeseman) would anticipate claim 10.

Referring to FIG. 1 of the present application, Applicants' claimed invention includes queue scheduling mechanism 10 which comprises several queue devices 12, 14, 16 and 18 which are associated with priority ranks P_0, P_1, P_2 and P_3. Thus, all of the priority ranks P_0, P_1, P_2 and P_3 are associated with a specific queue scheduling mechanism 10. Applicants' claimed credit device 28 provides at each packet cycle a value N defining the priority rank to be considered by the queue scheduler 20. The considered priority rank is selected based on a pre-determined value related to all of said priority ranks P_0, P_1, P_2 and P_3 (e.g. a percentage of occurrence of the considered priority rank amongst all of the priority ranks) which are associated with the queue scheduling mechanism 10. In this way, a minimum service rate for any one of the priority ranks P_0, P_1, P_2 and P_3 (e.g. lowest priority) is provided even when there are other priority ranks (e.g. highest priority) which need to be served. Thus, Applicants' claimed invention provides a queue scheduling mechanism 10 which serves the data packet queue based on the priority ranks P_0, P_1, P_2 and P_3 which are associated with the queue scheduling mechanism 10, and does not just serve the highest priority rank P_0 first until it is empty and then moves on to the next priority rank P_1,

etc. Applicants' claimed invention avoids congestion with data packets with a specific priority rank (e.g. lowest priority rank data packets) since a minimum service rate is provided for even the lowest priority rank associated with queue scheduling mechanism 10.

Applicants respectfully submit that Cheeseman would not anticipate, teach or suggest Applicants' independent claim 10, as amended, and claims dependent thereupon. Cheeseman does not disclose Applicants' limitation of "... a credit device that provides at each packet cycle a value N defining the priority rank to be considered by said queue scheduler, the considered priority rank is selected based on a pre-determined value related to all of said priority ranks which are associated with said queue scheduling mechanism ...". Rather, Cheeseman (see FIG. 9) discloses a queue scheduling mechanism 144a which includes cascaded queue schedulers P_{144} and W_{144} having priority ranks p0, p1, p2, p3 and H, S_{B1} and S_{B2}, respectively. Thus, priority ranks p0, p1, p2, p3, H, S_{B1} and S_{B2} are associated with queue scheduling mechanism 144a. Cheeseman discloses that queue scheduling mechanism 144a serves the higher priority ranks p0, p1, p2, p3 first, and only when they are empty does queue scheduling mechanism then serve the lower priority ranks H, S_{B1} and S_{B2} (see column 12, line 63 - column 13, line 9). Cheesman is silent on a credit device which selects the priority rank based on a pre-determined value related to all of the priority ranks p0, p1, p2, p3, H, S_{B1} and S_{B2}. Queue scheduling mechanism 144a of Cheeseman does <u>not</u> provide for a minimum traffic flow for the lowest priority rank data packets since the highest priority rank data packets will always be served first resulting in congestion in the data packet transmission system.

Regarding Chow, Applicants respectfully submit that Chow would not anticipate, teach or suggest Applicants' independent claim 10, as amended, and claims dependent thereupon. Chow does not disclose Applicants' limitation of "... a credit device that provides at each packet cycle a value N defining the priority rank to be considered by said queue scheduler, the considered priority rank is selected based on a pre-determined value related to all of said priority ranks

which are associated with said queue scheduling mechanism ...". Rather, Chow discloses (as the Examiner expressly states in the Office Action dated 09/15/2006 on page 9) a queue scheduling mechanism which includes a shaper scheduler and an idle bandwidth scheduler, wherein the shaper scheduler is given exhaustive priority over the idle bandwidth scheduler (see Chow, column 3, lines 42-44). Chow is silent on a credit device which selects the priority rank based on a pre-determined value related to all of the priority ranks associated with queue scheduling mechanism 10. Queue scheduling mechanism 10 of Chow does <u>not</u> provide for a minimum traffic flow for the lowest priority rank data packets since the highest priority rank data packets from the shaper scheduler will always be served first resulting in congestion in the data packet transmission system.

Therefore, Applicants believe that the rejection of the claims under 35 U.S.C. 102(e) has been overcome and it is respectfully requested that the pending claims be passed to issuance in view of the amendments and remarks.

Claim Rejections - 35 U.S.C. 103

The Examiner has rejected claims 3-8 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,438,134 (Chow) in view of U.S. Patent No. 6,721,273 (Lyon).

Applicants have canceled claims 4, 7 and 8, and have amended claims 3, 5 and 6 to be dependent upon new independent claim 10. Thus, the rejection of claims 3-7 as being unpatentable over Cheeseman in view of Lyon is moot.

As discussed herein above, Applicants believe that Chow would not anticipate, teach or suggest independent claim 10, as amended. Further, Applicants believe that Lyon does not remedy the deficiencies in Chow. Lyon discloses a queue scheduling mechanism which utilizes

"simple priority scheduling", wherein a higher priority queue is served first until it is empty, then the next lower priority is served (see column 7, lines 39-53 and FIG. 6 of Lyon). Lyon is silent on a queue scheduling mechanism as claimed by Applicants. Thus, Applicants respectfully submit that the combination of Chow and Lyon would not teach or suggest claims 3, 5, 6 and 10-19.

Therefore, Applicants believe that the rejection of the claims under 35 U.S.C. 103(a) has been overcome and it is respectfully requested that the pending claims be passed to issuance in view of the amendments and remarks.

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CONCLUSION

In light of the foregoing remarks, all of the claims now presented are believed to be in condition for allowance, and Applicants respectfully request that the outstanding objections be withdrawn and this application be passed to issue at an early date.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application. No fees are due by virtue of the present response, however, please charge Applicants' deposit account, 09-0456, for any fee that the PTO determines is due.

Respectfully Submitted,

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